Name of work :-Revised Estimate for the work of Providing and laying of sanitary pipe line 230mm & 300mm dia RCC pipe line at Kurlappa layout near Kogiluroad (Ward no.1) Yelahanka CMC area

Sl no	Description	Unit	L	B	D	Qty	Rate	Amount
1	Conducting the level and strip of survey of alignment of Main Sewers of required							
		Rmt				602	4.2	2528.4
	Cutting road surface for pipeline trenches and disposing of the excavated stuff as							
2	Cutting asphalt road							
	Pipe line excavation of Mh-47-46-45	Cum	12.5	1.5	0.05	0.94		
	Pipe line excavation of Mh44-43	Cum	27.5	1.5	0.05	2.06		
	Pipe line excavation of Mh43-42	Cum	22.75	1.5	0.05	1.71		
	Pipe line excavation of Mh41-40	Cum	27.5	1.5	0.05	2.06		
	Pipe line excavation of Mh40-39	Cum	27.5	1.5	0.05	2.06		
						8.83	482.2	4257.47
3	Cutting macadam road (BWSSB SR 2016-17,l no 4(1),P.no 9)							
	Pipe line excavation of Mh-47-46-45	Cum	12.5	1.5	0.3	5.63		
	Pipe line excavation of Mh44-43	Cum	27.5	1.5	0.3	12.38		
	Pipe line excavation of Mh43-42	Cum	22.75	1.5	0.3	10.24		
	Pipe line excavation of Mh41-40	Cum	27.5	1.5	0.3	12.38		
	Pipe line excavation of Mh40-39	Cum	27.5	1.5	0.3	12.38		
	Pipe line excavation of Mh39-36	Cum	42	1.5	0.3	18.90		
						71.89	263.4	18936.61
4	Earth work excavation for pipeline trenches (except building works) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following starta in the following strata with all							
	Upto 2.0m depth for 300mm DWC pipe line							
	For laying 300mm DWC pipe line							
	Pipe line excavation of Mh-47-46-45	Cum	30	2	2	120.00		
	Excavation for MH Mh-47-46-45	Cum	3	(3.142*1.25*1.25)*2		29.46		
	Pipe line excavation of Mh-45-44	Cum	20	2	2	29.46		
	Excavation for MH Mh-45-44	Cum	1	(3.142*1.25*1.25)*2.0		9.82		
	Pipe line excavation of Mh44-43	Cum	27.5	2	2	110.00		
	Excavation for MH Mh-44-43	Cum	1	(3.142*1.25*1.25)*2.0		9.82		
	Pipe line excavation of Mh43-42	Cum	22.75	2	2	91.00		
	Excavation for MH Mh-43-42	Cum	1	(3.142*1.25*1.25)*2.0		9.82		
	Pipe line excavation of Mh42-41	Cum	22.5	2	2	90.00		
	Excavation for MH Mh-42-41	Cum	1	(3.142*1.25*1.25)*2.0		9.81		
	Pipe line excavation of Mh41-40	Cum	27.5	2	2	110.00		
	Excavation for MH Mh-41-40	Cum	1	(3.142*1.25*1.25)*2.0		9.81		
	Pipe line excavation of Mh40-39	Cum	25	2	2	100.00		
	Excavation for MH Mh-40-39	Cum	1	(3.142*1.25*1.25)*2.0		9.81		
	Pipe line excavation of Mh39-36	Cum	40.5	2	2	162.00		
	Pipe line excavation of Mh 36-35-34	Cum	37.5	2	2	150.00		
	Pipe line excavation of Mh 35-33	Cum	19.5	2	2	78.00		
	Pipe line excavation of Mh 33-31-32	Cum	18	2	2	72.00		
	Excavation for MH Mh-40-39	Cum	8	(3.142*1.25*1.25)*2.0		78.55		
	Deduct for					1279.3		
	a) Cutting Ashphalt road					-8.83		
	b)Cutting macadam road					-71.89		
	c) disIntegrated rock					-147.45		
	d)hard rock by chistelling					-39.12		
						1012.1	163.5	165431.2867
5	Above 2.m -up to 4.0m (BWSSB SR 2016-17,SL no:1 1b,P.no 6)							

	Pipe line excavation of Mh-47-46-45	Cum	30	0.9	1.5	40.50		
	Excavation for MH Mh-47-46-45	Cum	3	(3.142*1.25*1.25)*1.6		23.57		
	Pipe line excavation of Mh-45-44	Cum	20	0.9	1.5	23.57		
	Excavation for MH Mh-45-44	Cum	1	(3.142*1.25*1.25)*1.6		7.86		
	Pipe line excavation of Mh44-43	Cum	27.5	0.9	1.5	37.13		
	Excavation for MH Mh-44-43	Cum	1	(3.142*1.25*1.25)*1.6		7.86		
	Pipe line excavation of Mh43-42	Cum	22.75	0.9	2	40.95		
	Excavation for MH Mh-43-42	Cum	1	(3.142*1.25*1.25)*1.6		7.86		
	Pipe line excavation of Mh42-41	Cum	2.5	0.9	1.5	3.38		
	Excavation for MH Mh-42-41	Cum	1	(3.142*1.25*1.25)*1.6		7.86		
	Pipe line excavation of Mh41-40	Cum	27.5	0.9	1.5	37.13		
	Excavation for MH Mh-41-40	Cum	1	(3.142*1.25*1.25)*1.6		7.36		
	Pipe line excavation of Mh40-39	Cum	25	0.9	1.4	31.50		
	Excavation for MH Mh-40-39	Cum	1	(3.142*1.25*1.25)*1.6		7.36		
	Pipe line excavation of Mh39-36	Cum	35.5	0.9	1.4	44.73		
	Pipe line excavation of Mh 36-35-34	Cum	37.5	0.9	1.4	47.25		
	Pipe line excavation of Mh 35-33	Cum	19.5	0.9	1.4	24.57		
	Pipe line excavation of Mh 33-31-32	Cum	18	0.9	1.4	22.68		
	Excavation for MH Mh-31,33,35,36 &39	Cum	5	(3.142*1.25*1.25)*1.5		24.55		
	Excavation for MH Mh-32,34,37,38,40,41,42,43 ,44&45	Cum	7	(3.142*1.25*1.25)*1.4		48.11		
	Deduct for	Cum				495.74		
	a) disintegrated rock	Cum				-37.40		
	b)hard rock by chistelling	Cum				-11.58		
		Cum				446.76		
	Qty up to 125%,i.e 141.14X 125%	Cum				176.43	216.4	38174.84
	Beyond 125%	Cum				270.34	236.3	63867.09
6	do- disintegrated rock.soft rock ,soft shale and medium hard rock comprising of lime stone, sand stone ,hard shale , schiest fissured rock without resorting to blasting up to 2 Mtr. Depth (BWSSB SR 2016-17,SL no:1 ii,P.no 6)							
	Pipe line excavation of Mh47-46	Cum	30	1	0.6	18.00		
	Pipe line excavation of Mh44-43	Cum	30	1.2	0.6	21.60		
	Pipe line excavation of Mh41-40	Cum	30	1.1	0.57	18.81		
	Pipe line excavation of Mh40-39	Cum	30	0.95	0.6	17.10		
	Pipe line excavation of Mh39-36	Cum	38	0.99	0.7	26.33		
	Pipe line excavation of Mh 36-35-34	Cum	37.5	0.95	0.61	21.73		
	Pipe line excavation of Mh 35-33	Cum	19.5	0.95	0.6	11.12		
	Pipe line excavation of Mh 33-31-32	Cum	18	0.9	0.6	9.72		
	Excavation for MH Mh-40-39	Cum	10	(3.142*1.25*1.25)*62		3.04		
						147.45	384.55	56703.45973
7	Above 2 up to 4 Mtr. Depth							
	Pipe line excavation of Mh44-43	Cum	25	0.9	0.28	6.30		
	Pipe line excavation of Mh41-40	Cum	22	0.9	0.25	4.95		
	Pipe line excavation of Mh40-39	Cum	20.2	0.81	0.29	4.74		
	Pipe line excavation of Mh39-36	Cum	28	0.9	0.31	7.81		
	Pipe line excavation of Mh 36-35-34	Cum	34.1	0.9	0.15	4.60		
	Pipe line excavation of Mh 35-33	Cum	19.5	0.9	0.16	2.81		
	Excavation for balance MH	Cum	10	(3.142*1.25*1.25)*.14		6.19		
						37.40	429.24	16055.41851
8	do- in hard rock by chistelling up to 2 Mtr. Depth (BWSSB SR 2016-17,SL no:1v /a,b,c ,P.no7)							
	Pipe line excavation of Mh44-43	Cum	30	0.72	0.2	4.32		
	Pipe line excavation of Mh41-40	Cum	30	0.61	0.23	4.21		
	Pipe line excavation of Mh40-39	Cum	30	0.65	0.2	3.90		
	Pipe line excavation of Mh39-36	Cum	38	0.9	0.23	7.87		
	Pipe line excavation of Mh 36-35-34	Cum	37.5	0.9	0.23	7.76		

	Pipe line excavation of Mh 35-33	Cum	19.5	0.9	0.16	2.81		
	Pipe line excavation of Mh 33-31-32	Cum	18	0.9	0.2	3.24		
	Excavation for Balance MH	Cum	10	(3.142*1.25*1.25)*.14		16.69		
						50.80	1542.9	78375.78
9	do- in hard rock by chistelling 2.0 to 4 Mtr. Depth							
	Pipe line excavation of Mh44-43	Cum	25	0.72	0.25	4.50		
	Pipe line excavation of Mh41-40	Cum	27	0.61	0.23	3.79		
	Pipe line excavation of Mh40-39	Cum	22	0.65	0.23	3.29		
						11.58	1655.8	19169.47795
10	Providing erecting and removing casurinapole three tier Barricading using poles of 7.50							
		M	602			602.00	54.60	32869.2
11	Carting of excavated Earth of all types upto a distance mentioned below and re-carting							
	Pipe line excavation of Mh 47-46-44	Cum	40	0.9	2	72.00		
	Pipe line excavation of Mh 35-33	Cum	19	0.9	1.8	30.78		
	Excavation for MH Mh-31,33,35,36 &39	Cum	5	(3.142*1.25*1.25)*1.5		24.55		
	Excavation for MH Mh-32,34,37,38,40,41,42,43 ,44&45	Cum	7	(3.142*1.25*1.25)*1.4		48.11		
	Pipe line excavation of Mh 33-31-32	Cum	18	0.9	1.4	22.68		
						198.12	344.57	68265.78
12	Providing course Sand Bedding for the pipeline trenches including watering and							
	sand bedding provided between Mh44-43-42-	Cum	50	0.9	0.15	6.75	1095.9	7397.39
13	Providing and laying Plain Cement Concrete of mix 1:2:4 (M-15) with OPC @ 240kgs,							
	Pedastal At jacking point near MH-47	Cum	4 X2	0.9	0.5	3.60		
	Pedastal At jacking point near MH-44	Cum	4 X2	0.9	0.5	3.60		
	Set wrighting the collapsed flooring &Pedastal At jacking point near MH-42-41(Gundappaa House)	Cum	13	0.9	0.6	7.02		
	Pipe encasing at SWD crossing	Cum	4X6	1	0.75	18.00		
						32.22	5473.7	176361.003
14	Refilling of available earth around pipelines, in layers not exceeding 20 cms in depth,							
	Total excavation = 1458.8 - (Pipe qty+ manhole qty)					1458.8		
	Deduct for							
	300mm Pipe line qty =	300*.175*.175*3.143				-28.9		
	Manhole qty =	92.58				-94.6		
	Concrete qty Vide Item no 13					-25.1		
						1310.3	72.9	95535.54968
15	Supplying lowering laying, jointing, testing and commissioning of following diameters							
	230 mm dia	Rmt	559.2					0
16	Supplying of following diameters S&S RCC SPUN/VIBRATED CAST PIPES (REINFORCED) of NP-3 class,300mm diameter							
		Rmt	285.2					0
17	Providing and constructing "wire cut brick manhole chambers" using sulphate resistant cement, conical in shape at top with C.C. 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15 m alround the chamber and brick masonry in C.M. 1:4 plaster with wire cut bricks of approved quality and CM plaster 1:3 proportion 12 mm thick inside and outside except for the conical surface outside where the thickness of plaster shall be 20 mm thick, with 1:6 slope in the concrete towards the central drain, finished smooth and fixing of pipes in CC 1:2:4 graded metal of 20 mm and down size including conveying to work spot supplying & fixing SFRC manhole frame and cover confirming to IS:12592 with latest amendments in CC 1:2:4, supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia, Grade Fe-415 steel bar (as per IS 1786) staggered at 30 cms apart as detailed in Technical Specifications and as directed, watering, curring, dewatering, engraving manhole No. with flow direction on the inner conical surface etc., as per the							
		No	1					
	1.20M Diameter manholes	No				0	13028	0
18	a)For 1.0 meter	No	12			12	16285	195425.4
19	b)Above 1.0m below 2.0m	Mtr	9.4			6.5	12070	78452.725

	a)For 2.0 meter	Rmt	10					
	Qty Up to 125% RA Enclosed		6			6	28355	170130.54
	b)Above 2.0m below 3.0m	Mtr	3			3	15264	45791.4
22	a) For 3.00m depth	No	10					
	Qty Up to 125% RA Enclosed		6.25			6.25	53939	337116
	Qty Beyond 125% RA Enclosed	Rmt	3.75			3.75	47209	177033.8
23	b)Above 3.0m below 4.0m	Rmt	1.5			1.5	21807	32711.1
24	Removing B S slab of drain and stacking with all lead & lift and as per the directed by engineer in							
	Pipe line Betn Mh-47-46 To facilate for HDD	Sqm	25	0.75		18.75		
	Pipe line Betn Mh-46-44To facilate for HDD	Sqm	20	0.62		12.4		
	excavation of Mh-44-47	Sqm	15	0.6		9		
						40.15	65.1	2613.77
25	Refixing stone slabs of drain & pointing in CM (1:3) with all lead & lifts complete and as							
	Qty as per item no 24					40.15	79.8	3203.97
26	Dismantling ofcement concrete payment by mechanical means using pneumatic tool,							
	Pipe encasing at SWD crossing	Cum	4X6	1	0.6	14.4		
	Approach slab near MH 35-34	Cum	8	4	0.3	9.6		
	Approach slab near MH 31-32	Cum	8	4	0.3	9.6		
	Approach slab near MH 12-13	Cum	8	4	0.3	9.6		
						43.2	820.05	35426.16
27	Providing and laying Reinforced Cement Concrete of Design mix M-25 with OPC cement @340kgs with 20mm and down size graded granite metal coarse aggregates @0.7cum							
	Approach slab near MH 35-34	Cum	7 X2	4	0.32	17.92		
	Approach slab near MH 31-32	Cum	7 X2	4	0.32	17.92		
	Approach slab near MH 45-46	Cum	7 X2	3	0.32	13.44		
						49.28	6532.1	321899.424
28	Dismantling Size stone masonary in lime / cement mortar and stacking the size stone							
	Between MH 47-46-45-44	Cum	2X18	0.62	1	22.32	180.6	4030.99
						0		
29	Providing and constructing granite / trap / basalt size stone masonry in foundation with							
	Between MH 47-46-45-44	Cum	2X18	0.6	1	21.6	4396.4	94961.16
	EXTRA ITEM							
2	Supplying DOUBLE WALL CORRUGATED (External annul corrugated & smooth internal							
3	Do-Pipes of SN 8, 300 mm dia.	Rmt	301			301	1385	416869.95
	Rs Twenty seven lakhs Lakhs Fifty none thousand Five hundred Ninty Five & Piase Ten only						Total	2759595.083

Assistant Engineer
Ward (No.1)

Assistant Executive Engineer
Yelahanka

Executive Engineer
Yelahanka Zone

Technical Sanction
Accorded For Rs 2759595.08
Head of A/C PDSL
CER NO : 19 Dt: 12.08.2020

TA CE (YNK)